Call Sign / Status	City/State / File	Channel / Class	ERP kw / HAAT	Location	Brg. To/Frm	Dist. km.	Req'd km.

Client : WIND N' SEA
Location : Ocean City MD
Class A FM Channel Study
Channel : 295A Location : 38-22-26N 75-10-38W Incl. Translators.
Data Source : FCC.
Reference : MM88-375 pge 11.

WSKX	Suffolk VA	295	100.0Ci	36-32-51	203.9	221.6	222.
Appl	BMPH880325IB	C	385.8m	76-11-04	023.9	+0.4	OK
WDLE	Federalsburg MD	296	3.86Ci	38-46-02	311.7	66.0	64.
Lic	BLH870227IY	A	124.1m	75-44-45	131.7	+2.0	OK
W296AB	Hanover PA	296	0.01H	39-51-22	317.7	224.8	**
Lic.	BLFT800516ID	D	30.5m	76-56-59	137.7	**	**
WRQX	Washington DC	297	36.0Cl	38-57-01	291.8	177.2	69.
Lic.	BLH791012AB	B	179.8m	77-04-47	111.8	+108.2	OK
NEW	Atlantic Cty NJ	297	25.0Ci	39-21-06	029.6	125.4	48.
Alloc	D80-90	B1	100.0m	74-27-24	209.6	+77.4	OK
NEW	Atlantic Cty NJ	297	25.0Ci	39-23-57	031.2	133.7	48.
Appl	BPH870827NY	B1	100.0m	74-22-17	211.2	+85.7	OK

Note: There are 20 applications for this channel. Only closest shown.

WKRE	Exmore VA	298	50.0Ci	37-31-46	214.7	113.9	69.
Lic.	BLH7464	B	79.2m	75-54-44	034.7	+44.9	OK
WBYO	Boyertown PA	298	30.0CiD	40-24-15	349.9	229.4	69.
Lic	BLH7814	B	185.9m	75-39-09	169.9	+160.4	OK

>>>>>>>>>>>>>>>>>>>>>>>End of copy 0345 122090 >>>>>>>Chge 9987>>>>>>>

(3) Interference Study. (Exhibit C)

A complete study was made using the proposed NEW site and the required spacings to co-channel, adjacent channel assignments, allocations and operating stations. The granting of A status to Channel 295 at Ocean City MD. would not preclude the upgrading of any other licensed facility, proposed facility or allocation, which is not already precluded, to next higher class. Station WDLE Federaisburg MD (presently silent) was granted an increase in power to 6 kw. This operation is protected from interference as shown by the anaiysis which follows. The new 294A allocation at N. Cape May NJ. shown on the database, is restricted to Class A 3 kw status by adjacent channel 295B at WKDN Camden NJ. The proposed spacing from Cape May to WKDN is 105.2 km., which is short of the 113 km required for 6 kw operation by 7.8 km. For proper spacing the site would be located in the Atlantic Ocean.

The application of the spacing table for this operation located on page 11 of FCC Dockett 89-232 protects all stations inaccordance with the rules. Examination of the the study included shows all station spacings to be within the table.

Exhibit D.

(4) Interference To Other Services.

Within the saturation contours of the proposed station there are located a number of Public Service stations operated by the County Emergency Management group, the Maryland Natural Resources Patrol and the State Police. The various operating frequencies have already been programmed into a computerized intermodulation study for NEW. NEW should not generate interference with existing services.

The applicant Partnership is aware of the requirements imposed under Sections 73.315, 73.316, and 73.318 of the Rules, and if this application is granted, the Applicant will accept responsibility, in accordance with the Rules, for the servicing of complaints of interference caused by the incoming service.

Exhibit E.

(5) Radio Frequency Environmental Assessment.

Wind 'n Sea FM Limited Partnership proposes to construct a new FM facility near the Town of Ocean Pines MD. The project is subject to the rules of the Federal Communications Commission and the Federal Aviation Administration. An existing tower is on the proposed site and is lighted with aviation warning lights and flashing beacon in accordance with FAA requirements. The site is located within the County of Worcester corporate limits and is adjacent to a private access road which borders the site. No additional access roads are therefore required.

The proposed construction of transmission facilities will in no way impact the present community services. The proposal meets safety requirements of OSHA in that the power density proposed is well below the maximum permissible OSHA level of 10 mw/cm^2. In addition the lower bay of the new antenna will be 90m above ground level or at least 70.m above the worst case ANSI minimums as specified in the bulletins. The base of the antenna will be fenced to an extent well beyond that which considered necessary by the regulation. In addition, the property is not used by the public and the nature of the land and prominent warning signs make trespassing unlikely beyond the limits of protective fencing.

The presence of the proposed tower will not be the subject of controversy in the community. The antenna location is not located near any property listed in the National Register of Historic Places or in a local or state version therof; in the National Register of National Landmarks; or in an area of study in the National Wilderness Preservation Act or in the Wild and Scenic Rivers Act. The construction and operation of the existing facility have had no effect on any species identified on the Endangered Species List. The proposed changes will follow the same pattern. The project will not create or precipitate any identifiable long term changes in the diversity of animal species, the population density of any animal species, or change the behavior patterns of any animal population.

Exhibit 6. Environmental (Continued).

The proposal will not utilize any unusally fragile environmental area. The changes to the existing tower will require no changes to the contour of the surface land nor will any change occur to surface water turbidity. The project will not cause or precipitate any identifiable long term changes in the diversity of plant species, or in the population density of an individual native spcies of plants.

In summary, the proposal will have no special environmental significance. There should be no further effect on scenic, cultural, historic, architectural, archeological, or recreational uses of surrounding lands, beyond that now being experienced. There will be no deforestation, water diversion, wetland fill, or other extensive change of surface features. The proposal will not create, directly or indirectly, a permanent environmental change to animals, plants, land, or humans.

References.

Fderal Communications Commission
1919 M Street NW
Washington DC 20554
Chief Mass Media Bureau.

Federal Aviation Administration
Eastern Region
JFK International A/P
Fitzgerald Federal Bldg.,
Jamaica NY 11430

D.B. Williamson P.E.
Consulting Engineer

December 20/90.

(6) System Description.

(a) Antenna. The antenna system proposed will be manufactured by Electronics Research Industries and will bear Continental Electronics designation G5CPM Series 2A. The antenna will consist of two bays, circularly polarized, fed at the end with 1 5/8" Heliax type air filled transmission line. The antenna is known in the trade as the "Rototiller". The antenna power gain is 0.9971 (-0.0128 db.) in vertical & horizontal planes. The antenna will be side mounted on the tower with the electrical centre 100.2m AGL, 104.8m AMSL. The electrical centre will be 100.0m AAT.

(7) Summary.

Channel - 295A Frequency - 106.9 mhz.

Co-ordinates - 38-22-26 N 75-10-38 W

Transmitter - Type accepted.

Transmission Line - 125m Andrew HJ7-50B Heliax cable or equivalent. (Attenuation - 0.673 db/100m).

Antenna - Harris /Continental G5CPM-Series2A.

Tower - 107.7m AGL 112.3m AMSL overall height.

Radiating Centre - 100.2m AGL 100.0m AAT
104.8m AMSL

ERP -

Tx pwr out	3.6517 kw.	5.625 dbk.
Line loss	- 0.643 kw.	-0.841 db.
Antenna Pwr in	3.0087 kw.	4.784 dbk.
Antenna Gain	x 0.9971	-0.0128 db.
ERP	3.0000 kw.	4.7712 dbk.

(8) Tabulation of Proposed Service Contours.

(a) Proposed Operation.

Azimuth (deg)	HAAT (m)	ERP (kw)	Dist. to 70 dbu. (km)	Dist. to 60 dbu. (km)
000	98.4	3.0	13.5	24.0
045	104.3	3.0	13.8	24.7
090	104.6	3.0	13.9	24.8
135	104.	3.0	13.8	24.6
180	102.4	3.0	13.8	24.1
225	94.9	3.0	13.4	23.4
270	95.2	3.0	13.5	23.5
315	96.2	3.0	13.5	23.8
Average	100.0			

Average Terrain Elevation	0.2m
Radiating Centre AAT	100.0m
Radiating Centre AMSL	104.8m
Radiating Centre AGL	100.2m
Ground Elevation	4.6m.

(9) Saturation Effects. (Exhibit F).

The location of the transmitter places a high radio field over considerable territory. The Applicant is a responsible broadcaster, well acquainted with the needs of the community. Should listener problems, or other problems with existing communications services occur; due to cross modulation or receiver overloading attributed to the incomming service; these will be serviced by the station in accordance with the requirements of Section 73.318 of the Rules.

(10) Population Density Figures.

	70dbu	60 dbu.
Proposed Operation:	585 km^2 8,664 Persons	1827 km^2 26,998 Persons.

Note : Population information for full year residence - Source C of C.
Increase in population during Summer months approximately 10 times.

Repectfully submitted,

D.B. Williamson P.E.
Consulting Engineer.
Decmber 20, 1990

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

Wind 'n Sea FM Limited Partnership

Call letters *(if issued)*	Is this application being filed in response to a window? ■ Yes ☐ No If Yes, specify closing date: _____
NEW	

Purpose of Application: *(check appropriate box(es))*

- ■ Construct a new (main) facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary facility
- ☐ Modify licensed main facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☐ Antenna supporting-structure height
- ☐ Effective radiated power
- ☐ Antenna height above average terrain
- ☐ Frequency
- ☐ Antenna location
- ☐ Class
- ☐ Main Studio location
- ☐ Other *(Summarize briefly)*

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served: City	County	State
295A	Ocean City	Worcester	MD

Class *(check only one box below)*

■ A ☐ B1 ☐ B ☐ C3 ☐ C2 ☐ C1 ☐ C

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

Part of Lot #1 SE side Cathell Rd., near Rte. 589 Worcester Cty. MD.

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	38°	22'	26"	Longitude	75°	10'	38"

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☐ Yes ■ No

If Yes, give call letter(s) or file number(s) or both. DNA

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any. DNA

4. Does the application propose to correct previous site coordinates? ☐ Yes ■ No
If Yes, list old coordinates.

Latitude	Longitude
° DNA ' "	° DNA ' "

5. Has the FAA been notified of the proposed construction? ■ Yes ☐ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. Exh A No.

Date 12/20/90 Office where filed JFK Intl. A/P

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Ocean City	7.85 km	145° T.
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 4.6m meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 107.7m meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 112.3m meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 100.2m meters (H)
100.2m meters (V)

(2) above mean sea level [(aX1) + (bX1)] 104.8m meters (H)
104.8m meters (V)

(3) above average terrain 100.0m meters (H)
100.0m meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator. Ex B No.

9. Effective Radiated Power:
(a) ERP in the horizontal plane 3.0 kw (H*) 3.0 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ■ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field. Ex DNA No.

_____ kw (H*) _____ kw (V*)

*Polarization

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 3)

10. Is a directional antenna proposed? ☐ Yes ■ No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of the relative field. Ex DNA No.

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.315(a) and (b)? ■ Yes ☐ No

If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and percentages of population and area that will not receive 3.16 mV/m service. Ex DNA No.

12. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal? ■ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. E DNA No.

13. (a) Does the proposed facility satisfy the requirements of 47 C.F.R. Section 73.207? ■ Yes ☐ No

(b) If the answer to (a) is No, does 47 C.F.R. Section 73.213 apply? ☐ Yes ☐ No

(c) If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of previous waivers. Ex DNA o.

(d) If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Ex C No.

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following: E DNA lo.

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? ■ Yes ☐ No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(e) and 73.318.)* Exl D No.

15. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V. The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No. 6

16. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. H

(a) the proposed transmitter location, and the radials along which profile graphs have been prepared;

(b) the 3.16 mV/m and 1 mV/m predicted contours; and

(c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 1827 sq. km. Population 26998

18. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. DNA

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

19. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313)*

Source of terrain data: *(check only one box below)*

☐ Linearly interpolated 30-second database ■ 7.5 minute topographic map

(Source: _____)

☐ Other *(briefly summarize)*

Maps used in presentation.

Exhibit G - Berlin MD 7.5' 38075 B2
Exhibit H - Salisbury 1:250000 38074 A1.
Radial Computations - Maryland/Delaware Series 380785
7.5' B,C,D,E - 1,2,3,4

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 5)

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances	
		To the 3.16 mV/m contour (kilometers)	To the 1 mV/m contour (kilometers)
**090	104.6	13.9	24.8
000	98.4	13.5	24.0
045	104.3	13.8	24.7
090	104.6	13.9	24.8
135	104.0	13.8	24.6
180	102.4	13.8	24.1
225	94.9	13.4	23.4
270	95.2	13.5	23.5
315	96.2	13.5	23.8

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? ☐ Yes ■ No

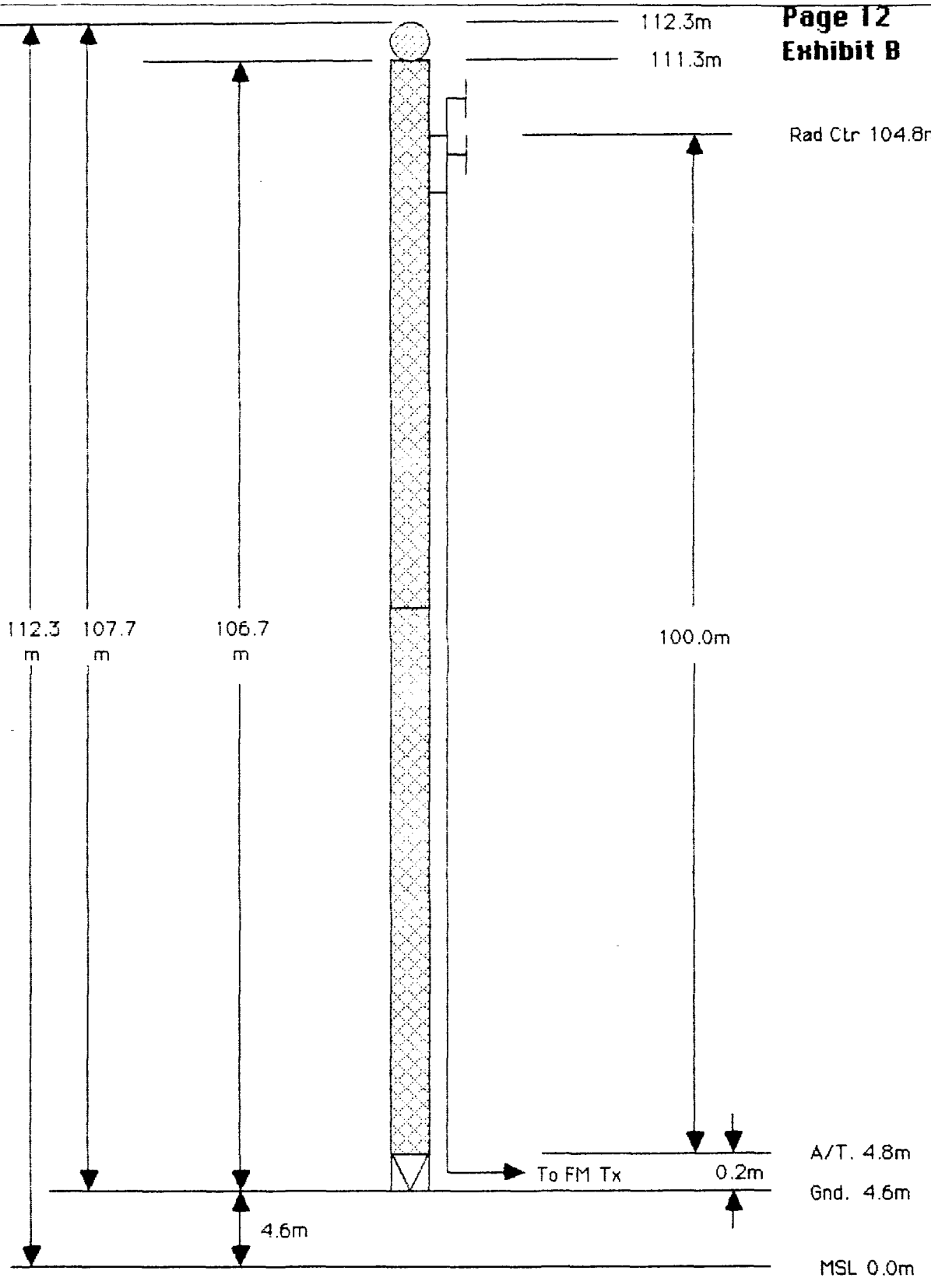
If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311. Ex E : No.

If No, explain briefly why not.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)* **D.B. Williamson P.E.**	Relationship to Applicant *(e.g., Consulting Engineer)* **Consulting Engineer**
Signature *D.B. Williamson*	Address *(Include ZIP Code)* **P.O.Box 246 Queenstown MD 21658-0246**
Date **December 21, 1990**	Telephone No. *(Include Area Code)* ( ) **301-827-7431**



NEW-FM Tower Elevation Sketch showing location of antenna.
FM Antenna ERI Low Pwr. 2 Bay Harris FML-2AE/Cont. G5CPM
December 20/1990

CAN-AM CONSULTANTS LTD.
Engineering Services From Florida to the Arctic Circle

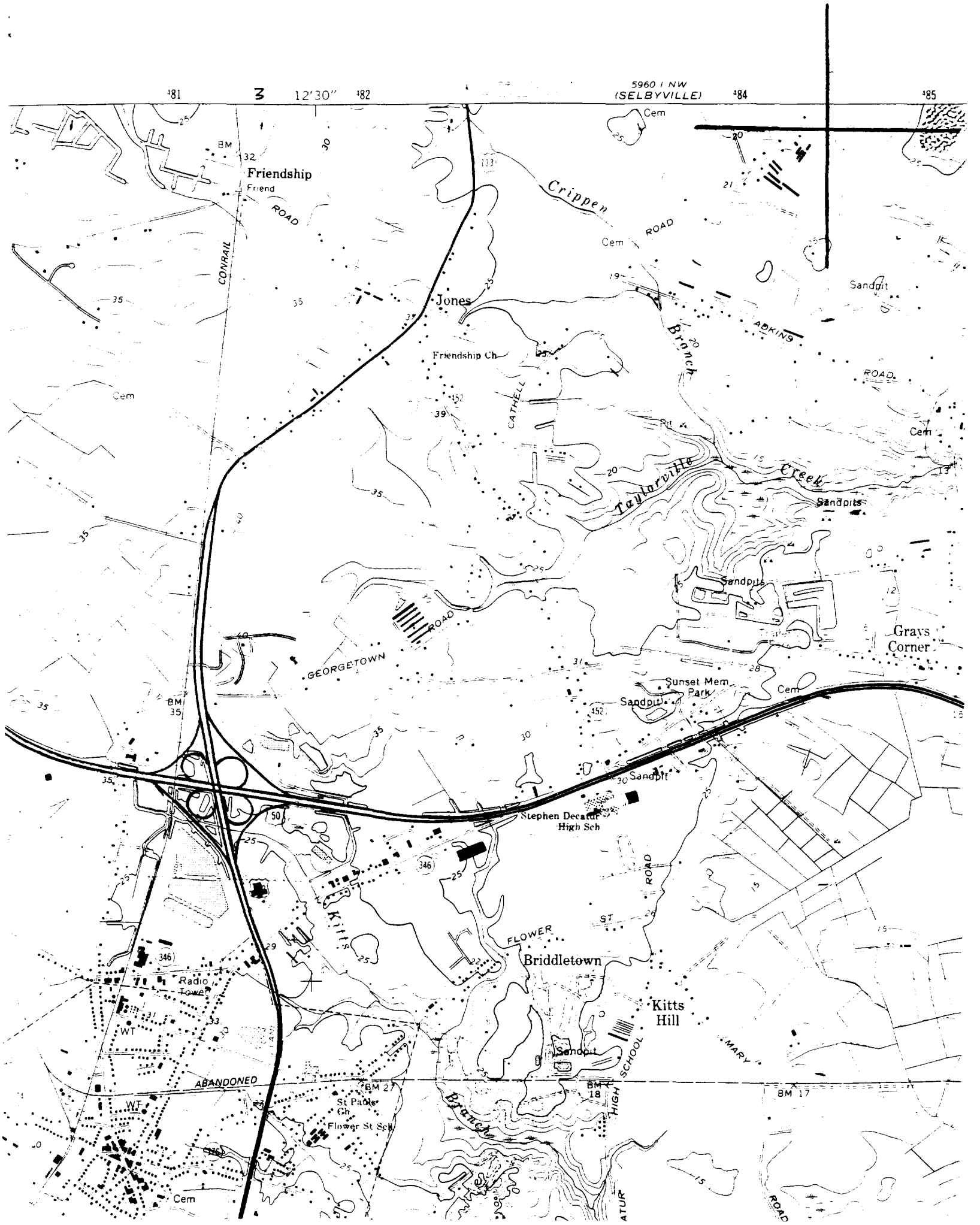
State of)
Maryland) ss:
)

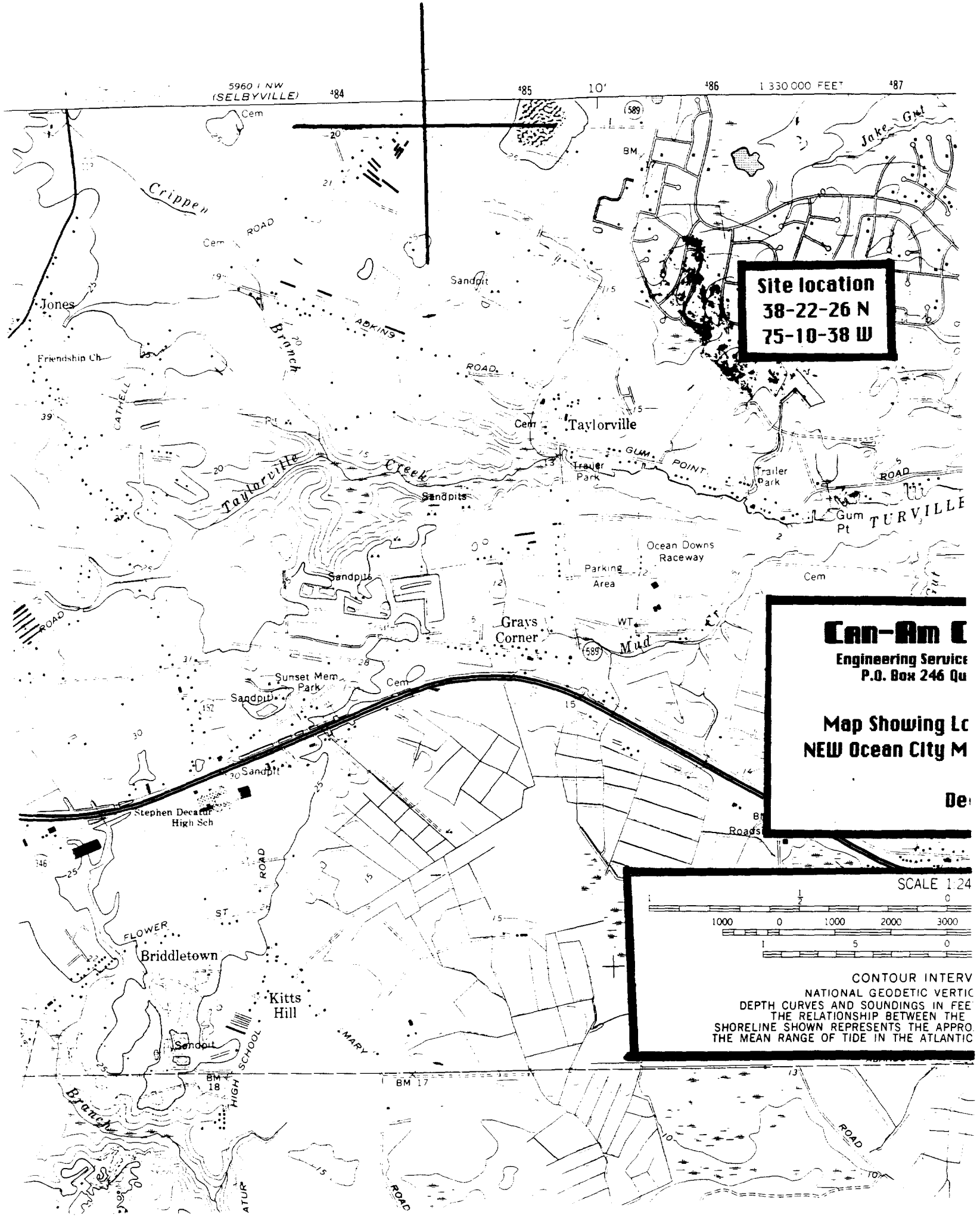
Donald B. Williamson, deposes and says that he is a Registered Professional Engineer, and President of Can-Am Consultants Limited. This company operates in the State of Maryland and the Provinces of Ontario, Quebec, and Alberta, Canada. Mr. Williamson's Engineering qualifications are well known to Communications Canada in Ottawa, Canada and to the Federal Communications Commission in Washington D.C. He has been in continuous private practice as a Qualified Consulting Engineer since 1956.

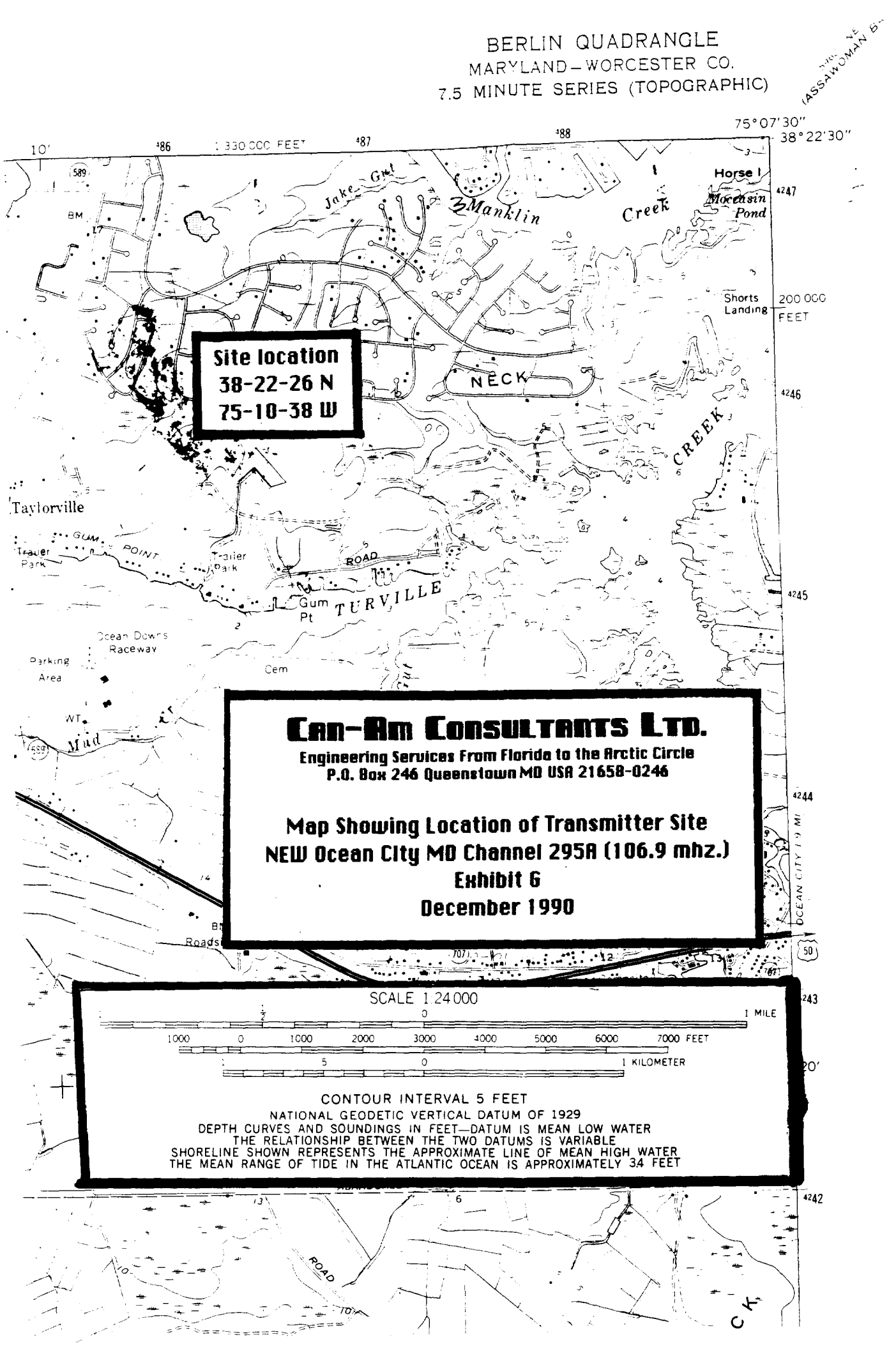
Affiant states that the calculations and measurements contained in the accompanying report were made by him personally or under his direct supervision and that he believes them to be correct in all respects. All statements made in this report are true of his own knowledge except where stated to be on information from other sources, information or belief, and these statements he believes to be true.

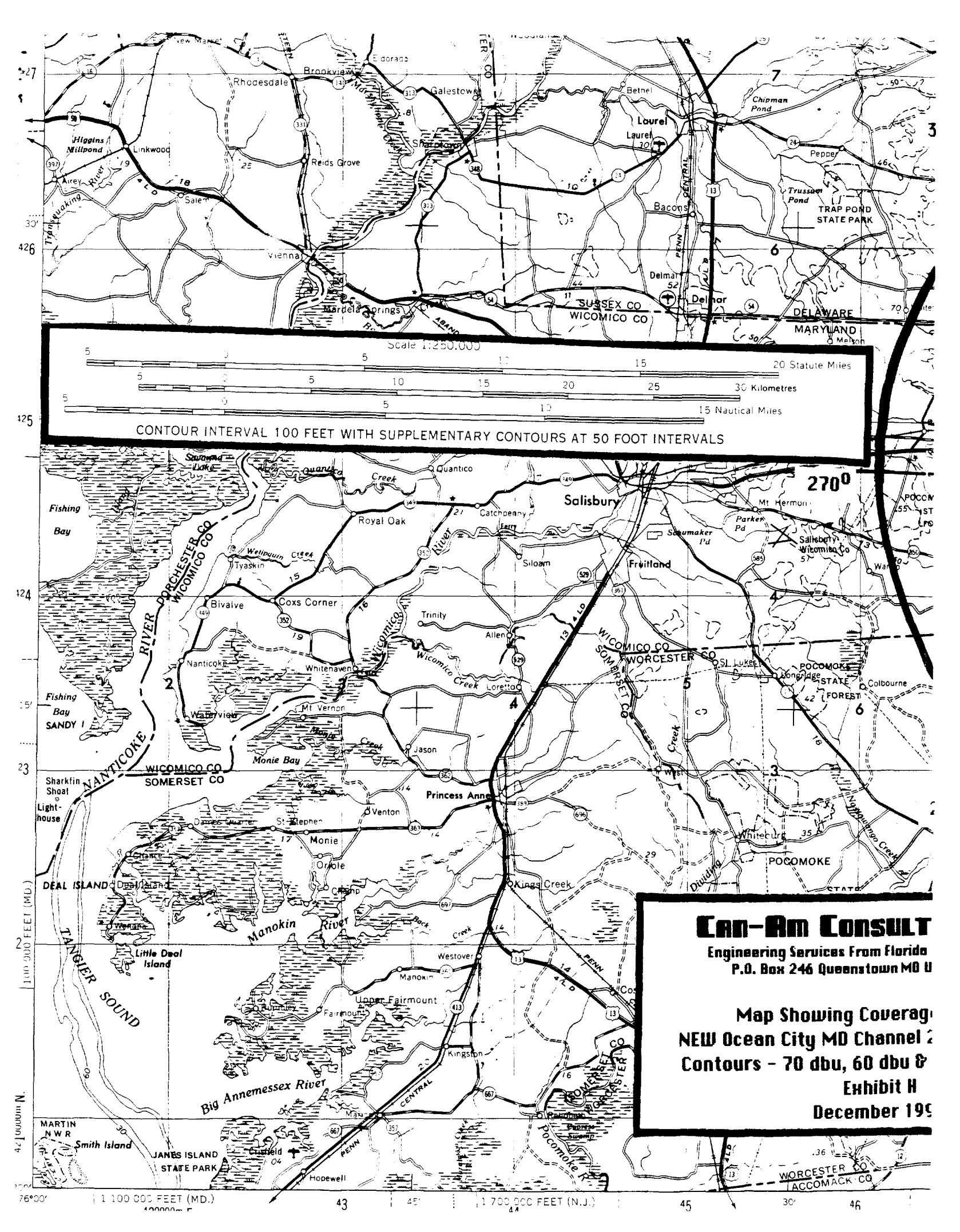
D.B. Williamson P.E.
Consulting Engineer.

December 21, 1990.


5960 I NW
(SELBYVILLE)
12'30"
Friendship
Friend
Crippen
Cem
ROAD
CONRAIL
Jones
Friendship Ch
Branch
ADKINS
Sandpit
Cem
CATHELL
Taylorville
Creek
Sandpits
Sandpits
Grays
Corner
GEORGETOWN
ROAD
Sunset Mem
Park
Cem
Sandpit
Sandpit
Stephen Decatur
High Sch
Kitts
FLOWER
ST
ROAD
Briddletown
Kitts
Hill
Radio
Tower
WT
ABANDONED
WT
BM 27
St Pauls
Ch
Flower St Sch
Cem
Sandpit
SCHOOL
HIGH
MARY
BM 18
BM 17
Branch
ROAD


5960 I NW
(SELBYVILLE)
484
485
10'
486
1 330 000 FEET
487
Site location
38-22-26 N
75-10-38 W
Can-Am C
Engineering Service
P.O. Box 246 Qu
Map Showing Lc
NEW Ocean City M
De
SCALE 1:24
1000 0 1000 2000 3000
CONTOUR INTERV
NATIONAL GEODETIC VERTIC
DEPTH CURVES AND SOUNDINGS IN FEE
THE RELATIONSHIP BETWEEN THE
SHORELINE SHOWN REPRESENTS THE APPRO
THE MEAN RANGE OF TIDE IN THE ATLANTIC
Crippen
Jones
Friendship Ch
Branch
ADKINS
ROAD
CATHELL
Taylorville
Creek
Sandpits
Cem
Taylorville
GUM POINT
Trailer Park
Gum Pt
TURVILLE
Ocean Downs Raceway
Parking Area
Grays Corner
WT
Mud
Sunset Mem Park
Stephen Decatur High Sch
Briddletown
Kitts Hill
FLOWER
ST
MARY
HIGH SCHOOL
BM 18
BM 17
Branch
Roads
589

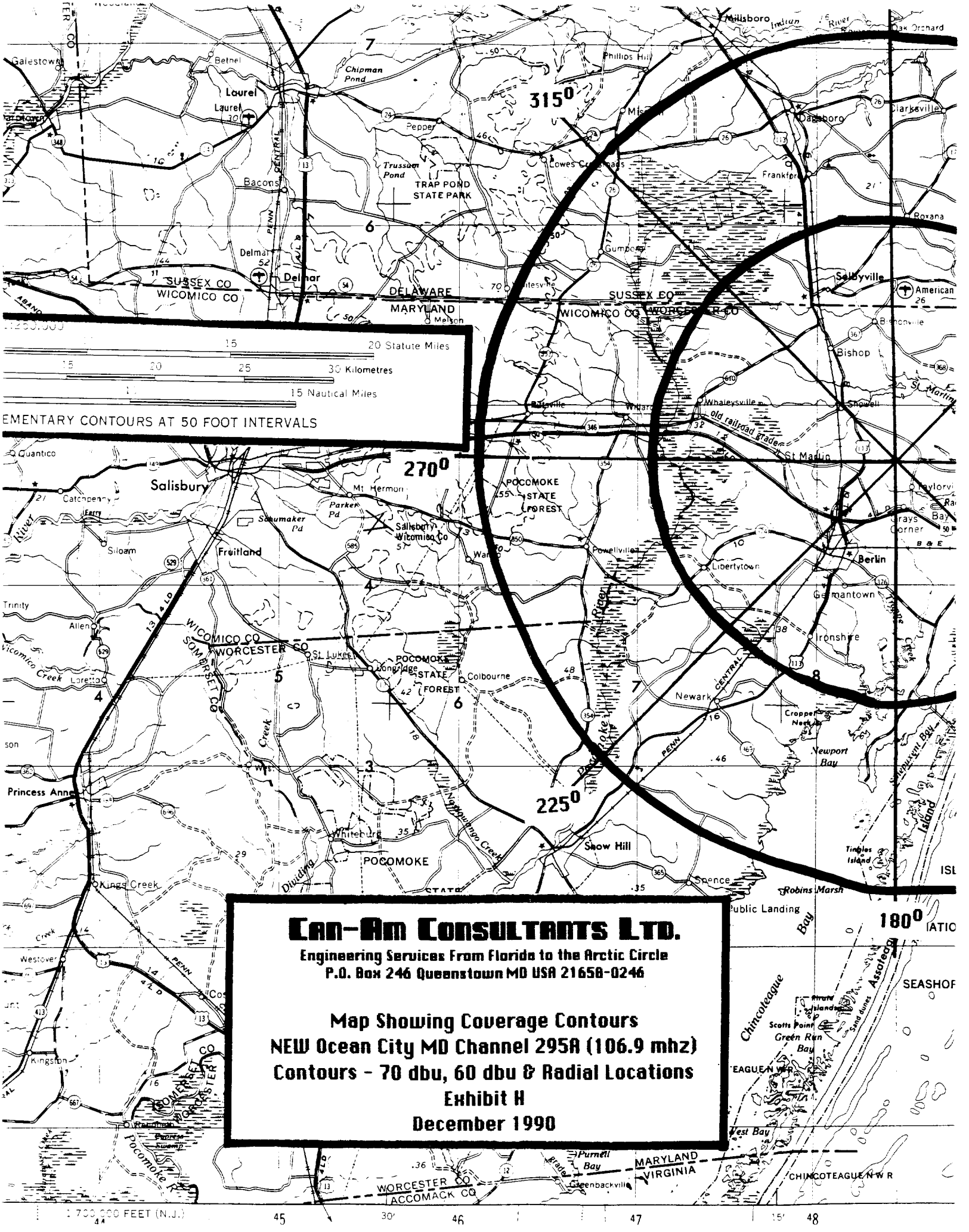

BERLIN QUADRANGLE
MARYLAND–WORCESTER CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
75°07'30"
38°22'30"
1 330 000 FEET
Site location
38-22-26 N
75-10-38 W
Horse I
Moccasin Pond
Shorts Landing
200 000 FEET
NECK
CREEK
Taylorville
GUM POINT
ROAD
Gum Pt
TURVILLE
Ocean Downs Raceway
Parking Area
Cem
Mud
CAN-AM CONSULTANTS LTD.
Engineering Services From Florida to the Arctic Circle
P.O. Box 246 Queenstown MD USA 21658-0246
Map Showing Location of Transmitter Site
NEW Ocean City MD Channel 295A (106.9 mhz.)
Exhibit 6
December 1990
SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER
CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IN THE ATLANTIC OCEAN IS APPROXIMATELY 3.4 FEET



Can-Am Consult

Engineering Services From Florida
P.O. Box 246 Queenstown MD U

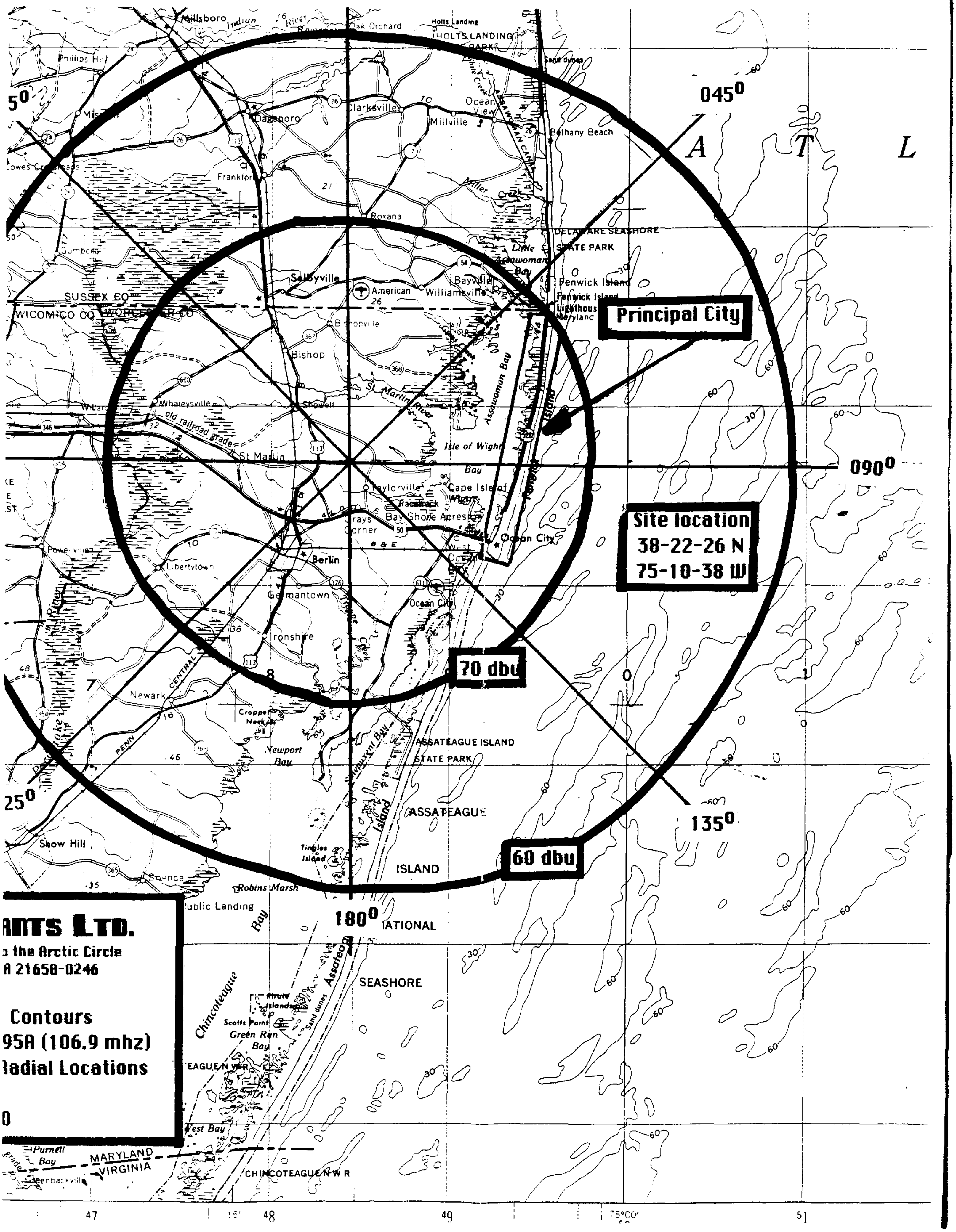
Map Showing Coverag
NEW Ocean City MD Channel
Contours - 70 dbu, 60 dbu &
Exhibit H
December 19



Can-Am Consultants Ltd.

Engineering Services From Florida to the Arctic Circle
P.O. Box 246 Queenstown MD USA 21658-0246

Map Showing Coverage Contours
NEW Ocean City MD Channel 295A (106.9 mhz)
Contours - 70 dbu, 60 dbu & Radial Locations
Exhibit H
December 1990



ANTS LTD.
o the Arctic Circle
A 21658-0246

Contours
95A (106.9 mhz)
Radial Locations

0